

II. AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) An integrator circuit comprising: an operational amplifier having: a transistor stage having an input terminal and an output terminal; a feedback capacitor connected directly between the input terminal and the output terminal of the transistor stage; a resistor connected between an input voltage to the integrator circuit and the input terminal of the transistor stage; further comprising a first additional circuit branch comprising: a second capacitor and a second resistor connected in series directly to each one with the other and further wherein the second capacitor is directly connected between to the output terminal of the transistor stage and the second resistor is directly connected to a voltage comprising the inverted input voltage to the integrator circuit.
2. (Previously Presented) An integrator circuit according to claim 1 further comprising a second additional circuit branch.
3. (Original) An integrator circuit according to claim 2 wherein the first additional circuit branch is connected between the non-inverted output of the transistor stage and the inverted input of the integrator and the second additional circuit branch is connected between the inverted output terminal of the transistor stage and the non-inverted input of the integrator.
4. (Currently Amended) A first filter stage in a sigma delta analog to digital conversion circuit comprising an integrator circuit comprising:

an operational amplifier having:

a transistor stage having an input terminal and an output terminal;

a feedback capacitor connected directly between the input terminal and the output terminal of the transistor stage;

a resistor connected between an input voltage to the integrator circuit and the input terminal of the transistor stage; further comprising a first additional circuit branch comprising:

a second capacitor and a second resistor connected in series directly to each one with the other and further wherein the second capacitor is directly connected between to the output terminal of the transistor stage and the second resistor is directly connected to a voltage comprising the inverted input voltage to the integrator circuit.

5. (Previously Presented) A sigma delta analog to digital conversion circuit comprising an integrator circuit according to claim 1.

6. (Currently Amended) A balanced amplifier comprising an integrator circuit comprising:

an operational amplifier having:

a transistor stage having an input terminal and an output terminal;

a feedback capacitor directly connected between the input terminal and the output terminal of the transistor stage;

a resistor connected between an input voltage to the integrator circuit and the input terminal of the transistor stage; further comprising a first additional circuit branch comprising:

a second capacitor and a second resistor connected in series directly to each one with the
~~other and further wherein the second capacitor is directly connected between to~~ the output
terminal of the transistor stage and the second resistor is directly connected to a voltage
comprising the inverted input voltage to the integrator circuit.